# **ICT for Development**

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Dr. Rajesh Sharma ітѕ

Department of Telecom

New Delhi

## Recap of Session 3,4

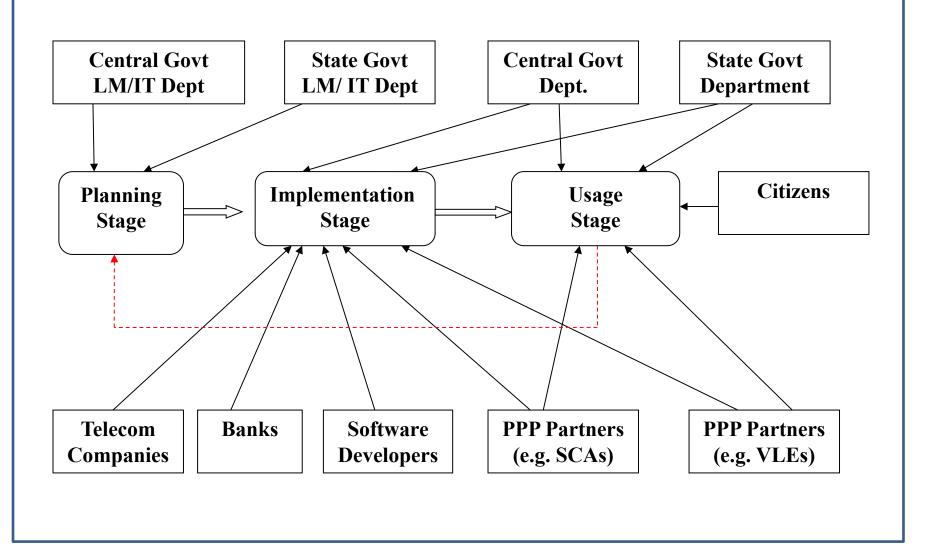
- MDG vs SDGs
- Mapping of national Programs with SDGs
- Monitoring progress with identification of indicators
- ICT Development Index
  - *Why is it required?*
  - What are its components?
  - What are the Indicators for each component?
- What is e-Government? Why is it required?
- Maturity model of e-Government
- Challenges in achieving e-Government

## Transformation in e-Government ecosystem

- Mobile connections > 118 crores\* as compared to 16.5 crores in March 2007.
- Internet users > 82.2 crores\* as compared to 4.6 crores in March 2007.
- Broadband connections > 78 crores\* as compared to 23.4 lacs in March 2007.
- Bank accounts > 160 crore.
- Aadhar enrolment >130 crores.

(\*As on 31.7.2021 as per TRAI report)

# **Key Stakeholders in Delivery of e-Government Services**



## e-Government Project Life Cycle

#### **Pre-initiation**

Review of lessons from past projects.

Environment scanning

Benchmarking

#### **Initiation**

Stakeholder analysis

Problem analysis

Objectives analysis

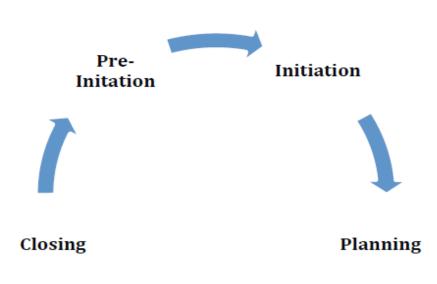
Feasibility study

Cost-benefit analysis

#### **Planning**

Scope management, time management, cost management, quality management, human resource management, communication management, risk management, procurement management, and project integration management

**Implementation** *Control mechanism* **Closing** *Impact analysis* 





#### Brief history of e-Government initiatives in India

1970s

• Automation of government functions in defense, economic planning, census etc.

1980s

NIC connects all district headquarters with VSAT.

1990s

- Computerization of Railway's PRS
- Initiatives by state governments e.g. Gyandoot in (information sharing) MP, Bhoomi (land record) in Karnataka, Akshaya (e-literacy)in Kerala.

2006

 National e-Governance Policy (NeGP) unveiled



# **Digital India**

"A programme to transform India into a digitally empowered society and knowledge economy"

## The Digital India Program

- 'Digital India' program launched by the Government of India in July 2015 at an estimated cost of Rs 1,13,000 crores.
- The program has the vision to transform India into a digitally empowered society and knowledge economy.
- Three primary focus areas of the 'Digital India' program are
  - creation of digital infrastructure
  - electronic delivery of services and digital literacy
  - Empowerment of citizens with e-participation in governance.

## What is Digital India?

- Digital India is a Programme to prepare India for a knowledge future
- The focus is on being transformative to realize: IT(India Talent) + IT(Information Tech)
   = IT (India Tomorrow)
- The focus is on making technology central to enabling change
- It is an **Umbrella Programme** covering many departments.
  - It weaves together a large number of ideas and thoughts into a single,
     comprehensive vision so that each of them is seen as part of a larger goal
  - Each individual element stands on its own. But is also part of the larger picture
  - The weaving together makes the Mission transformative in totality.
- The Programme:
  - Pulls together many existing schemes
  - These schemes are being restructured and re-focused
  - They are being implemented in a synchronized manner
  - Many elements are only process improvements with minimal cost.
- The <u>common branding</u> of programmes as **Digital India** highlights their transformative impact.

# **Digital India - Vision Areas**



Digital Infrastructure to every citizen



Digital Services and Governance on demand



Digital Empowerment of citizens

## **Digital India - Vision Areas**

# Digital Infrastructure as a Utility to Every Citizen

- High speed internet
- Unique digital identity
- Mobile phone & bank account
- Access to a Common Service Centre
- Private space on Cloud
- Secure cyber-space

# Governance & Services on Demand

- Integrated services
- Availability of services through online & mobile platforms
- Portable Citizen entitlements on Cloud
- Ease of doing business
- Financial transactions electronic & cashless
- Geospatial Information Systems (GIS) as Decision Support System

# Digital Empowerment of Citizens

- Digital literacy
- Digital resources
- Digital resources / services in Indian languages
- Collaborative digital platforms
- No physical submission of documents





**Nine Pillars of Digital India** 

		Nine	Pillar	S OT D	ugitai i	naia		
Broadband Highways	Universal Access to Mobile Connectivity	Public Internet Access Programme	Reforming Governance through Technology	E-Kranti: Electronic Delivery of Services	Information for All	Electronic Manufacturing	IT for Jobs	Early Harvest Programme
	2	3		4	5	6	7	

## **Pillar 1. Broadband Highways**

Broadband for all
Urban and Rural

 High Speed Internet in all Urban and Rural areas even in remotest parts of the country including hilly terrains.

#### Pillar 2. Universal Access to Phones

Universal Access to Phones

 Mobile connectivity in remaining 55,000 villages. Comprehensive Plan has been developed for hilly states and remotest villages.

## Pillar 3. Public Internet Access Program

#### Common Services Centres (CSCs) –

Viable, Multi-functional e-Services delivery outlets closer to the doorsteps of citizen

- Currently over 166,000 CSCs operational; Target
   250,000 (at least 1 CSC per 5000 persons)
- These centres are also being leveraged for Digital Literacy Programme.

Post Offices
to become
Multi-Service Centres

- with a network of 154,000 Post Offices, India has the largest postal network in the world.
- Post Offices are being modernized to provide financial services including Core Banking Solutions, Insurance Solutions & ATM Services.

#### Pillar 4. Reforming Governance through Technology

- **Government Process Re-engineering** *using IT to improve transactions* 
  - Form Simplification, Online applications and tracking, Use of online repositories e.g. school certificates, voter ID cards, etc., Integration of services and platforms Unique Identification Authority of India (UIDAI), Payment Gateway, Mobile Platform, Digital Locker, etc.
- **Electronic Databases** all databases and information to be electronic
- Workflow automation inside government
- **Public Grievance Redressal** using IT to automate, respond, analyse data to identify and resolve persistent problems largely process improvements
- Being implemented across government critical for transformation.

#### Pillar 5. e-Kranti: Electronic Delivery of Services

- Technology for Education e-Education
  - All Schools connected with broadband
  - Free wifi in all schools (250,000)
  - Digital Literacy program
  - MOOCs –Massive Online Open Courses
- Technology for Health e-Healthcare
  - Online medical consultation
  - Online medical records
  - Online medicine supply
  - Pan-India exchange for patient information
- Technology for Planning
  - GIS based decision making
  - National GIS Mission Mode Project
- Technology for Security
  - Mobile Emergency Services

- Technology for Farmers
  - Real time price information
  - *Online ordering of inputs*
  - Online cash, loan, relief payment with mobile banking
- Technology for Financial Inclusion
  - Mobile Banking
  - Micro-ATM program
  - Common Services Centres, Post Offices
- Technology for Justice
  - e-Courts, e-Police, e-Prison, e-Prosecution
- Technology for Security
  - National Cyber Security Co-ordination Center

## Pillar 5. e-Kranti: Electronic Delivery of Services

Fully Implemented / providing services (15)	Partial Implemented / providing services partially (14)	Design & Development (3)	<u>Under</u> <u>implementation (5)</u>
<ol> <li>Pensions</li> <li>Banking</li> <li>Passport</li> <li>Visa</li> <li>Income Tax</li> <li>MCA21</li> <li>Insurance</li> <li>Central Excise and Tax</li> <li>UID</li> <li>Road Transport</li> <li>India Portal</li> <li>EDI</li> <li>Financial Inclusion</li> <li>Gateway / NSDG</li> <li>CSC</li> </ol>	<ol> <li>Employment         Exchange</li> <li>PDS</li> <li>Treasuries</li> <li>e-District</li> <li>Agriculture</li> <li>Municipalities</li> <li>Commercial Taxes</li> <li>Land Records</li> <li>Shaala Darpan</li> <li>e-Office</li> <li>e-Biz</li> <li>Social Benefits</li> <li>e-Proc</li> <li>e-Courts</li> </ol>	<ol> <li>Health</li> <li>Agriculture         <ol> <li>Rural                 Development</li> <li>e-District</li> <li>At Scoping (7)</li> <li>e-Vidhaan</li> <li>W&amp;C                 Development</li> <li>CAPF</li> <li>e-Sansad</li> <li>Urban                 Governance</li> <li>e-Bhasha</li> <li>NGIS</li> </ol> </li> </ol>	<ol> <li>Gram         Panchayats</li> <li>Police</li> <li>Post</li> <li>NMEICT</li> <li>RAHI</li> </ol>

#### Pillar 6. Information for All

- Online Hosting of Information & documents
  - Citizens have open, easy access to information
  - Open data platform (<u>https://data.gov.in/</u>)
  - 63,239 registered users so far.
- Government pro-actively engages through social media and web based platforms to inform citizens
  - <u>http://mygov.in/</u> **2-way communication** between citizens and government
  - Over 1.85 million registered users
  - Over 2.62 million comments for 483 discussions
  - MyGov Mobile App has also been developed

#### Pillar 7. Electronic Manufacturing

- Target NET ZERO Imports is a striking demonstration of intent
- Promoting Foreign companies to set up manufacturing units in India
- Ambitious goal which requires coordinated action on many fronts
  - Taxation, Incentives
  - Economies of Scale, Eliminate cost disadvantages
  - Focused areas Big Ticket Items
    - FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer
       & Medical Electronics, Smart Energy meters, Smart cards,
       micro-ATMs
  - Incubators, clusters
  - Skill development
  - Government procurement
- Electronics Development Fund established to promote start-ups

#### Pillar 8. IT for Jobs

Train people in smaller towns & villages for IT sector jobs

Coverage: 10 million students

IT/ITES in North Eastern States

 Setting up of BPOs in North Eastern States and Smaller towns of the country

#### Pillar 8. IT for Jobs...

Train Service Delivery
Agents to run viable
businesses delivering
IT services

- Capacity Building Program at Village Level Entrepreneurs levels is being conducted.
- Coverage: 300,000 persons

Telecom service providers to train rural workforce to cater to their own needs

 All Telecom Service Providers have been requested to take necessary action to tie up with local technical institutions.

## Pillar 9. Early Harvest Program

#### **IT Platform for Messages**

- e-Sampark database developed to send messages and emails to public representatives and government employees
- 8 million email addresses and 13.6 crore mobile numbers available
- 143 campaign and 420 million mailers sent

#### **Government Greetings to be e-Greetings**

- e-Greetings portal <a href="https://egreetings.india.gov.in/">https://egreetings.india.gov.in/</a>
- Over 10 lakh e-Greetings sent
- Over 39 greeting categories and 503 cards are available to send greetings in electronic form on various occasions such as Independence Day, New Year, etc.

## Pillar 9. Early Harvest Program

#### School Books to be e-Books

- e-Basta (<a href="https://www.ebasta.in/">https://www.ebasta.in/</a>) is an electronic platform of e-Books for schools with 797 e-Contents and 37 e-Basta (collection of books) available
- 797 e-Basta and 7,718 e-Contents have been downloaded so far

#### SMS based weather information, disaster alerts

- SMS disaster alert operational
- Agencies are using SMS services for disaster alert and weather forecast

## **Pillar 9. Early Harvest Program**

#### **Biometric Attendance System**

- Attendance of Government employees through Biometric Authentication ( http://attendance.gov.in/)
- 625 Central Govt offices onboarded, Over 178, 410 employees registered
- 20 State/UT Governments and over 3 lakh employees registered

## **New Channels of Communication**

**Social Media**: "A group of Internet-based applications that are built on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content.

(Kaplan, & Haenlein, 2010)

#### **CHANNELS**

Facebook

*Twitter* 

Instagram

*WhatsApp* 

Tinder

•••

#### WHAT THEY DO

- Share information
- Mould opinion
- Connect individuals
- Connect communities
- Tool of active participation

#### WHAT THEY IMPACT

- Intrapersonal communication
- Interpersonal communication
- Group communication
- Public communication
- Mass communication

## **New Channels of Communication**

ICTs provide access to	Kind of ICT activities	Examples	
People	Intercreativity between individuals and within groups; like one-to-one, one-to-many, many-to-one, many-to-many communication.	E- Mails, Discussion Forums, Voice communication, Text communication, Collaboration tools, Virtual networked teams, online learning, online games	
Services	Conducting electronic transactions and obtaining electronic services from distant or nearby sources.	Online shopping, banking, and other e-business interactions; Online music, video, e-health, diagnostics etc.	
Information	Access to Internet	Wired and wireless telecommunications, Internet infrastructures, Network security, anti-virus, anti-spam and child-protection software.	

# Thank you!

Email: rajesh.sharma25@gov.in

Cell: 9868131220